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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/196,129	11/20/98	KATAFUCHI	T PMS257863

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EXAMINER

DOMBROSKE, G

ART UNIT

PAPER NUMBER

2855

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DATE MAILED: 11/22/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/196129

Applicant(s)

KATAFUCHI et al.

Examiner

DOMBROSKE

Group Art Unit

2855

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on 8 NOVEMBER 1999.
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-14 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-14 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other \_\_\_\_\_

Office Action Summary

1. Claims 1-14 are rejected under 35 U.S.C. 103 as being unpatentable over Hayakawa et al.

Hayakawa et al. suggest an invention including the features of claim 1, but without explicitly setting forth the claimed quantitative dimensional relationships. However, inspection of the patent (including Fig. 2) reveals that, at the very least, it would have been obvious to construct a Hayakawa-like sensor having dimensional relationships as claimed- particularly because no critical significance appears to attach to the the exact values claimed.

Hayakawa et al. show the features of claim 2.

Hayakawa et al. show the features of claim 3, subject to the foregoing discussion of the obviousness of the claimed dimensional relationships.

Hayakawa et al show the features of claim 4.

Regarding claim 5, it would have involved only routine skill to form the electrodes by any suitable known and desired process, including electroplating, since structure formed by any such process would function in a manner equivalent to that formed by any other known process.

The substance of claims 6-14 is also suggested by Hayakawa et al., with the exceptions of (1) the particularly claimed relative dimensional relationships and (2) the particularly claimed fabrication methods (such as the plating of claim 10). However, as discussed *supra*, it is believed that it would have been obvious to a routineer in the art to fabricate a Hayakawa-like sensor using any available and convenient fabrication technology, and to use dimensional relationships as claimed.

2. Applicant's arguments filed on 8 November 1999 have been fully considered but they are not persuasive.

Applicant's principal argument in support of the patentability of the rejected claims is that the Hayakawa et al. reference does not "attach significance to the dimensional values we claim." This argument is bolstered by pointing out advantages of the invention as claimed, with reference to Figs. 8 and 9. The examiner agrees that the reference does not appear to explicitly recite or identify the claimed dimensional values or ranges of dimensional values; nor does the reference appear to evince an appreciation of the advantages referred to in applicant's remarks. Even so, inspection of the reference shows that the dimensional relationships among the components of the Hayakawa device are at least approximately the same as those claimed, and may actually fall within the claimed ranges. Moreover, even without an appreciation of the problems "recognized and overcame" by the applicants, it would have been obvious and within the skill of a routineer in the art to construct a sensor similar to that of Hayakawa but perhaps with slightly different dimensional relationships, in order to meet the requirements of packaging for a particular application. Therefore, even if the geometry of the preferred embodiment depicted by the Hayakawa reference did not fall within the claimed ranges, it would have been obvious to a routineer to modify the dimensional relationships at will (perhaps falling into the claimed ranges), even without knowledge or appreciation of the problem or solution mentioned by the applicants.

3. Applicant's amendment necessitated any new ground(s) of rejection which may have been presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George M. Dombroske, whose telephone number is (703) 308-6721.

The fax phone number for this Group is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.



George M. Dombroske  
21 November 1999

George Dombroske  
Primary Examiner